

## **ELECTRICALLY DISBONDING MATERIALS**

### **Abstract of the Disclosure**

An electrochemically disbondable composition is provided having a matrix functionality and an electrolyte functionality. The matrix functionality provides an adhesive bond to a substrate, and the electrolyte functionality provides sufficient ionic conductivity to the composition to support a faradaic reaction at an interface with an electrically conductive surface in contact with the composition, whereby the adhesive bond is weakened at the interface. The composition may be a phase-separated composition having first regions of substantially matrix functionality and second regions of substantially electrolyte functionality. Adhesive and coating compositions and methods of disbonding also are described.

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